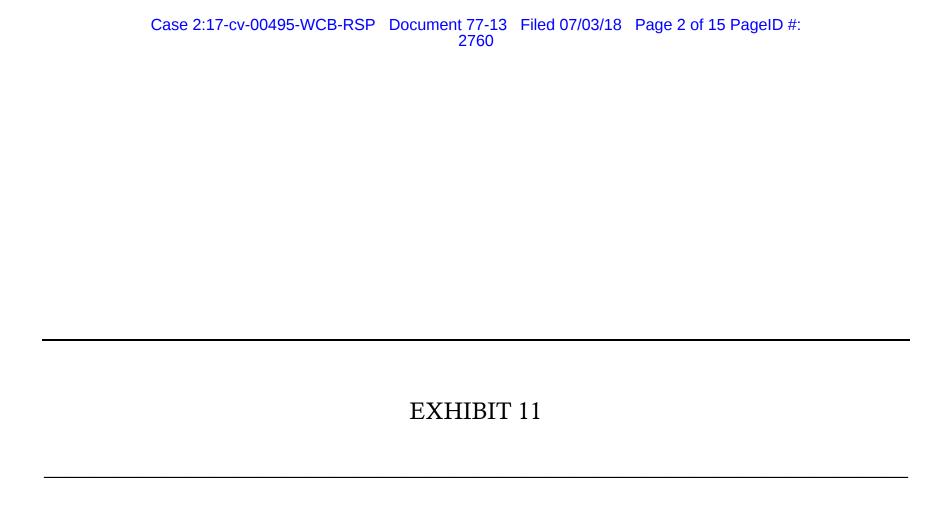
# Exhibit 11



**CYWEE GROUP LTD,** 

VS.

HUAWEI DEVICE CO. LTD., HUAWEI DEVICE (DONGGUAN) CO. LTD., AND HUAWEI DEVICE USA, INC.

#### UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS MARSHALL DIVISION

EXEMPLARY CLAIM CHART

U.S. PATENT NO. 8,552,978 – Huawei Mate 10 Infringement Contentions

These contentions are disclosed to only provide notice of Plaintiff's theories of infringement. These contentions do not constitute proof nor do they marshal Plaintiff's evidence of infringement to be presented during trial.

#### Case 2:17-cv-00495-WCB <u>P.S.Patent Numers 2763</u> Halled 07/03/108 Page 4 of 15 PageID #:

Claim 10

Claim 10 with claim constructions (text in brackets [] reflects the Court's claim construction or the parties' agreed claim construction in *CyWee Group*, *Ltd. v. Apple Inc.*, No. 3:13-cv-01853-HSG). Construed terms and constructions are underlined.

#### 10. A method for compensating rotations of a 3D pointing device, comprising:

generating an orientation output associated with an orientation of the 3D pointing device associated with three coordinate axes of a global reference frame associated with Earth;

generating a first signal set comprising axial accelerations associated with movements and rotations of the 3D pointing device in the spatial reference frame;

generating a second signal set associated with Earth's magnetism; generating the orientation output based on the first signal set, the second signal set and the rotation output or based on the first signal set and the second signal set;

generating a rotation output associated with a rotation of the 3D pointing device associated with three coordinate axes of a spatial reference frame associated with the 3D pointing device; and

using the orientation output and the rotation output to generate a transformed output associated with a fixed reference frame associated with a display device [Court's construction: using the orientation output and the rotation output to generate a transformed output that corresponds to a two-dimensional movement in a plane that is parallel to the screen of a display device], wherein the orientation output and the rotation output is generated by a nine-axis motion sensor module; obtaining one or more resultant deviation including a plurality of deviation angles using a plurality of measured magnetisms Mx, My, Mz and a plurality of predicted magnetism Mx', My' and Mz' for the second signal set.

Claim 10

A method for compensating rotations of a 3D pointing device, comprising:



Huawei Mate 10

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generating an orientation output associated with an orientation of the 3D pointing device associated with three coordinate axes of a global reference frame associated with Earth;

Claim 10	Case 2:17-cv-00495-wcb.ms.matemont.lights20783 Hallen May 3108 Page 7 of 15 Page ID #:
l .	irst signal set comprising axial accelerations associated with movements and rotations of the 3D pointing device in the ce frame;
	ee support for this element in Exhibit 7

Claim 10 Claim 10	
generating a second signal set associated with Earth's magnetism;	
See support for this element in Exhibit 7	

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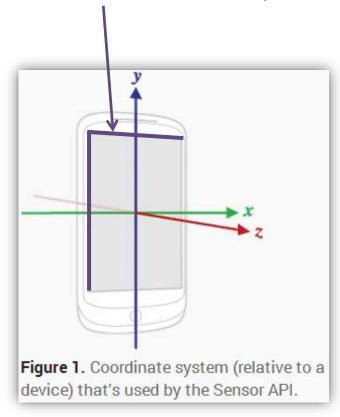
generating the orientation output based on the first signal set, the second signal set and the rotation output or based on the first signal set and the second signal set;

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generating a rotation output associated with a rotation of the 3D pointing device associated with three coordinate axes of a spatial reference frame associated with the 3D pointing device; and

using the orientation output and the rotation output to generate a transformed output associated with a **fixed reference frame** associated with a **display device** [Court's construction: using the orientation output and the rotation output to generate a transformed output that corresponds to a two-dimensional movement in a plane that is parallel to the screen of a display device],

The fixed reference frame is defined by the horizontal and vertical axes of pixels on Huawei Mate 10's display device.





**Source**: http://developer.android.com/guide/topics/sensors\_overview.html#sensors-coords

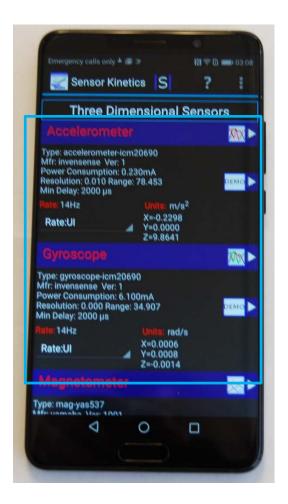
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using the orientation output and the rotation output to generate a transformed output associated with a fixed reference frame associated with a display device [Court's construction: using the orientation output and the rotation output to generate a transformed output that corresponds to a two-dimensional movement in a plane that is parallel to the screen of a display device],

Claim 10

wherein the orientation output and the rotation output is generated by a nine-axis motion sensor module;

The Huawei Mate 10 includes a 3-axis gyroscope, a 3-axis accelerometer, and a 3-axis magnetometer which form a nine-axis motion sensor module.





	2.17-cv-00493-vvcb- <u>0.8. Patent No. 8,552,9785</u> Hulawer Mate 10 Fage 14 of 13 Fagerb #.
Claim 10	2112
	resultant deviation including a plurality of deviation angles using a plurality of measured magnetisms Mx, My, redicted magnetism Mx', My' and Mz' for the second signal set.
Sees	support for this element in Exhibit 7

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The method of claim 10, wherein the orientation output is a rotation matrix, a quaternion, a rotation vector, or comprises three orientation angles.